

Communicating Science in the New Millennium

A two-day conference in January, "NIH: Communicating Science and Health in the New Millennium," underscored NIH's renewed emphasis on ensuring that information from basic and applied biomedical research is made immediately available to citizens, health providers, health educators, and decision-makers. The conference, hosted by NIH Director Harold Varmus, brought together 300 members of the NIH communications community, along with outside researchers, journalists, and administrators. The conference was the first one held in the Natcher Building, a new, state-of-the-art meeting and conference facility on the NIH campus.

In his opening remarks at the meeting, Varmus charged attendees to help NIH address three challenges in communicating research: recognizing what needs to be said, delivering the message, and identifying and responding to the audience NIH must reach, which includes a diverse public with varying levels of literacy. Anne Thomas, director of the NIH Office of Communications and chair of the conference, presented a video during the opening session that highlighted NIH communications and featured scenes of the press conference conducted by Varmus, NIEHS Director Kenneth Olden, and NIEHS scientists following announcement of the discovery of the breast cancer susceptibility gene, as well as a segment on Martin Rodbell, NIH Scientist Emeritus at NIEHS and co-recipient of the 1994 Nobel Prize in Medicine.

Kathleen Hall Jamieson, dean of the Annenberg School of Communication at University of Pennsylvania, delivered the conference's keynote presentation. Jamieson pointed out that NIH must leave behind the old transmission model of communications, where messages are simply imparted to the audience. Current technology and culture demand an interactive model of communications, she said, providing new structures of access to information and allowing a dialogue with the public rather than a lecture platform from which to speak to passive listeners. Jamieson noted that the news media relies upon drama and conflict to define news, and these elements sometimes upstage or distort informa-

tion about health and science in the news. She also noted that NIH trust and credibility are invaluable, and that in partnerships with private industry to deliver health messages, NIH should take care to avoid the appearance of compromise which may lead to a loss of public trust.

The conference featured a series of panel discussions followed by work group sessions on topics such as health communications, news/mass media, and reaching audiences of ethnic populations, youth, patient cohorts, and low literacy groups. In the work group sessions, NIEHS reported pioneering efforts in outreach to ethnic, low-income, and underserved rural and urban communities. The NIEHS outreach program serves as a model for other NIH efforts.

Samuel Silverstein, president of the Federation of Applied Science and Experimental Biology, asserted that NIH grantees have a responsibility to acknowledge the source of their research funding and to explain not just the results of their experiments but the implications of their findings to the diagnosis, prevention, and cure of disease.

Women at the Bench

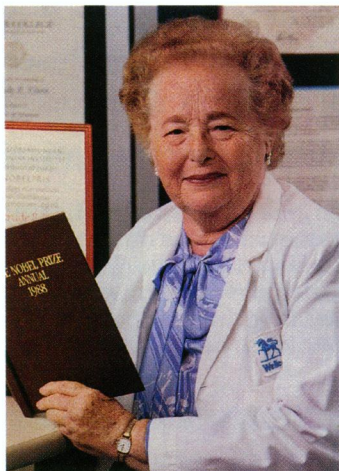
Women scientists, their accomplishments, and their career paths are the focus of the NIEHS Distinguished Women Scientists Seminar Series that will feature five seminars, including one by Gertrude Elion, 1988 Nobel Laureate and Scientist Emeritus at Burroughs Wellcome Company. Suzanne M. Snedeker, a scientist at NIEHS and chair of the organizing committee, said, "In addition to presenting a formal research seminar, the speakers also will lead an informal discussion about

the paths their careers have taken. We hope this dialogue presents a rare opportunity for senior women scientists to talk to junior scientists about their research, and how they successfully broke through the 'glass ceiling' that has affected the advancement of women scientists."

Sponsored by the NIEHS Division of Intramural Research Women Scientists and the NIEHS Office of the Scientific Director, the series will continue from March through September and is

open to the public. The research seminars will be held at 10 a.m. in building 101, conference room B, at NIEHS's South Campus in Research Triangle Park, North Carolina. The schedule follows:

- March 2: Patricia K. Donahoe, chief, Pediatric Surgical Services, Massachusetts General Hospital. Donahoe was the NIEHS Hans L. Falk Memorial Lecturer in 1992 and will speak on "TGF-beta Receptor Downstream Interactors in Growth and Differentiation."
 - March 31: Alice Huang, dean for science, New York University, will speak on "Neuronal Pathways Utilized by Vesicular Stomatitis Virus after Intranasal Inoculation: Determination of Site(s) for Interference."
 - May 8: Elaine Faustman, professor and associate chair, Department of Environmental Health, University of Washington at Seattle, will speak on "*In Vitro* Developmental Toxicity Assessments: Application for Mechanistic Evaluations."
 - June 28: Thea Tlsty, associate professor, University of North Carolina at Chapel Hill, will speak on "Disruption of Genomic Integrity in Tumor Progression."
 - September 7: Gertrude Elion, 1988 Nobel Laureate and Scientist Emeritus, Burroughs Wellcome Company, "Challenges of Pharmaceutical Research."
- For further information about the seminars, contact Claudia Thompson, (919) 541-4638.



Gertrude Elion

Burroughs Wellcome

International Groups Consult on Prioritizing Chemicals

In January, 60 representatives from 14 countries, including international and intergovernmental organizations and industrial associations, met at the NIEHS to give advice on prioritizing chemicals for international risk assessment and related issues. The meeting was co-sponsored by the International Programme on Chemical Safety (IPCS) and the Organisation for Economic Co-operation and Development (OECD) and supported by the NIEHS, the EPA, and the governments of Japan and Canada.

Since 1973, 284 chemicals have been recommended to the IPCS to be internationally evaluated for health and environmental effects, and over 80% of these chemicals have been evaluated in some manner. Criteria adopted previously for selecting chemicals for evaluation include:

- Adverse effects: data support the conclusion that the substance presents a potential hazard for human health and/or the environment;

- Exposure: the use, persistence, accumulation, or degradation of the substance shows that there may be significant exposure of humans or the environment;
- Targets: the size and nature of the population at risk (human and other species) and the risks for the environment should be taken into account; and
- International concern: the substance should be of major interest to several countries.

Target chemicals for evaluation were set by U.N. member countries at the first meeting of the International Forum on Chemical Safety in 1994. OECD has a program to test and assess high production volume (HPV) chemicals which began in 1990 and currently includes 220 HPV chemicals; evaluations have been finalized for 45. Results of these evaluations will be published in cooperation with the IPCS. For additional information on this joint effort, contact George C. Becking, World Health Organization, at (919) 541-7537.

Tribal Environmental Council Meets

Native American tribal leaders met in December to confront growing concerns about the environment on tribal lands at the second annual meeting of the National Tribal Environmental Council (NTEC) in Reno, Nevada.

Jerry Pardilla, interim executive director of the council, noted that NTEC was founded by 7 tribes in 1991 and has now grown to 53 member tribes from 16 states. "While there is great diversity in our tribal cultures, geography, and governance," Pardilla said, "we are striving to develop a tribal environmental strategy which respects our differences and builds upon our common experiences."

The meeting was co-sponsored by the NIEHS. Kenneth Olden, director of NIEHS, was the keynote speaker. Olden's address, entitled, "Protecting the Environment, Protecting the Children," highlighted the research initiatives of the NIEHS focused on the issue of environmental justice. Olden said, "Institute efforts recognize that residents in a local area are the starting point for effective research as well as prevention and intervention programs in environmental health sciences . . . When scientists work collaboratively with grassroots groups such as the National Tribal Environmental Council, we do science that more immediately improves people's health."

The NIEHS involvement in the conference is just one aspect of the institute's efforts to address concerns of Native Americans. Last spring, the NTEC hosted a two-day visit by Olden and members of his staff to Pueblo homes near Albuquerque, New Mexico. Leadership of the NTEC also



On the front line. K-12 teachers and NIEHS staff met at a recent workshop on science literacy.

participated in the NIEHS Environmental Justice Symposium in February 1994 that brought together grassroots environmental groups from around the country with key environmental officials from the federal government. During that meeting, President Clinton signed an Executive Order establishing a government-wide environmental justice initiative.

Earth Day Environmental Careers Symposium

For the third year in a row, NIEHS will co-host approximately 200 high school students and their teachers for a series of presentations, lunch, and a high-tech, interactive "arcade" of environmental science-related exhibits. The April 26 event is designed to help participants learn more about the many careers relating to the environment including scientific research, public policy, communications, and other fields. Speakers will include Bill Leslie, environmental reporter for WRAL television in Raleigh, a CBS affiliate.

The students from each high school will attend a series of morning and afternoon presentations. The winners of a special essay contest on an environmental subject, sponsored by the NIEHS and North Carolina State University's College of Forest Resources, will receive prizes of U.S. Savings bonds at the opening session.

Michael Hogan, chair of the NIEHS Science Education Committee, which plans the event, noted that plans this year will expand services to enable hearing-impaired students to attend. Hogan noted, "The responses we receive from students and their teachers indicate that the symposiums have generated strong interest in research and other environmental careers among students."

NIEHS Hosts Teacher Workshop

K-12 classroom teachers are on the front line for science education. NIEHS joined with other major research organizations in Research Triangle Park, North Carolina, in hosting a series of teacher workshops titled, "Rx for Science Literacy: The What, Where, How and Why of Biomedical Research." The series, sponsored by the North Carolina Association for Biomedical Research, runs from January through April.

Explaining the purpose behind the conferences, Karen Hoffman, president of NCABR, said, "Teachers are in a unique position to introduce their students to the role biomedical research has played in prevention and treatment of human disease and dysfunction. These workshops give teachers a foothold in enhancing science literacy among their students."

The sessions were designed to update teachers' knowledge about biomedical research and testing and to allow scientists from host institutions to present information about their own career paths and about opportunities for young people in science. Examples of sessions include talks on "The Fidelity of Genetic Reproduction," by William Copeland of the NIEHS Laboratory of Molecular Genetics; "Biotechnology: New Tools of Molecular Toxicology," by Kenneth Tindall of the NIEHS Laboratory of Environmental Carcinogenesis/Mutagenesis; and "NIEHS Animal Care and Use Program" by Mary Goetz of the Comparative Medicine Branch.

During the meetings, teachers toured NIEHS laboratories and received a 300-page teacher reference manual and lesson plans as well supplemental materials and videotapes. Teachers who attended received a unit of renewal credit toward teacher certification.